Avid Configuration Guidelines
HP xw8400 Workstation

The following document for the HP xw8400 includes additional guidelines to configure your system.

Avid Editing Applications Supported

The following Avid editing applications have been qualified with the **HP xw8400** workstation.

- **Avid Xpress Pro** v5.6 or later
  - Supports software only, Mojo and Mojo-SDI (on-board FireWire only)
- **Avid Media Composer** v2.6 or later
  - Supports software only, Mojo, Mojo-SDI and Adrenaline (on-board FireWire only)
- **Avid NewsCutter XP** v6.6 or later
  - Supports software only, Mojo and Mojo-SDI (on-board FireWire only)
- **Avid NewsCutter Adrenaline** v6.6 or later
  - Supports Adrenaline DNA only (on-board FireWire only)

Avid Storage Supported

The following storage configurations are supported with the Avid editor applications.

- **Avid Local SCSI Storage**
  - With add-in ATTO ExpressPCI UL4D
- **Avid Local Fibre Storage**
  - With 1 or 2 add-in ATTO Celerity FC42-ES FibreChannel adapters
- **Avid Unity MediaNetwork Ethernet Client**
  - With the integrated Broadcom Gigabit Ethernet port
  - With an add-in Alacritech SEN2001XT Gigabit Ethernet card
- **Avid Unity MediaNetwork Fibre Client**
  - With add-in ATTO Celerity FC41-ES FibreChannel adapter
- **Avid Unity ISIS client**
  - With Intel PRO/1000 MT PCI-X Dual-Port Gigabit Ethernet Server adapter

HP xw8400 System Specification Tested

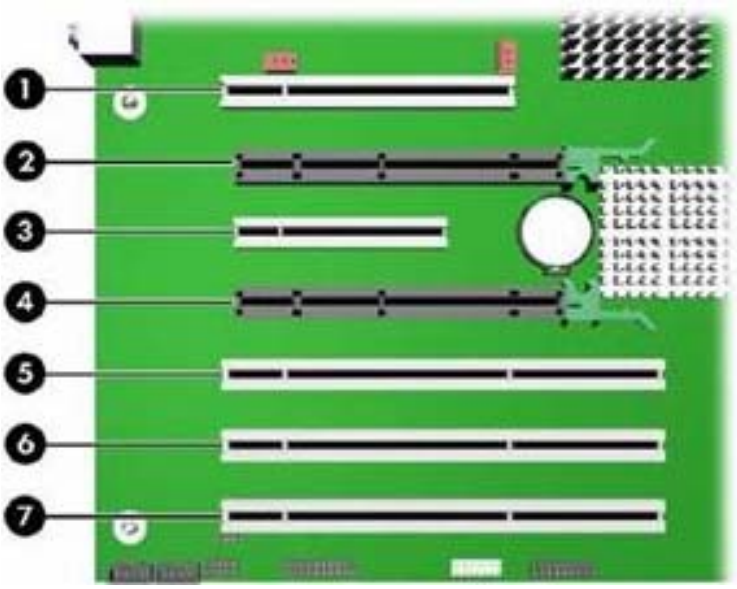
The following HP xw8400 configuration was tested:

- Microsoft® Windows® XP 32-bit Edition (SP2)
- Two Intel® Dual-Core Xeon® 5150 Processors @ 2.66Ghz
- 2GB DDR2 677 ECC FBD memory
  - 3GB for M/C HD or M/C SD high stream count
  - 4GB for use with Unity MediaNetwork 5.0 and DNxHD (4x 1GB DIMMS in slots 1, 3, 5 & 7)
- 250GB SATA 3Gb/s NCQ 7200RPM Hard Disc Drive
- NVIDIA Quadro FX 1500 256MB PCI-e & NVIDIA Quadro FX 3500 256MB PCI-e video boards
- No floppy drive installed or required

Supported Slot Configuration

- **Slot 1 (PCI 32-bit 33MHz)**
- **Slot 2 (PCI-e x16)**
  - Option 1: NVIDIA Quadro FX 1500
  - Option 2: NVIDIA Quadro FX 3500
- **Slot 3 (PCI-e x8 mechanical - x4 electrical)**
  - Option 1: Atto Celerity FC-41ES Fibre adapter (Unity MediaNetwork Fibre connectivity)
  - Option 2: Atto Celerity FC-42ES Fibre adapter (local F/C storage only)
- **Slot 4 (PCI-E x16) (x4 Electrical)**
  - Optional: Secondary Atto Celerity FC-42ES Fibre adapter (local F/C storage only)
- **Slot 5 (PCI-X 133 MHz)**
  - Option 1: IEEE-1394 adapter for Avid Studio 002, FireWire storage, or DV deck
    i. ADS Technologies PYRO PCI 64 (API-311) (Non RoHS)
    ii. ADS Technologies PYRO PCI 64R2 (API-315) (RoHS)
    iii. SIIG 1394 3-port PCI I/O (NN-300012-S6)
  - Option 2: Tarari Encoder Accelerator for Windows Media
    (preferred slot – will run fastest here)
- **Slot 6 (PCI-X 100MHz)**
  - Option 1: Intel PRO/1000 MT PCI-X Dual-Port Gigabit Ethernet adapter (ISIS Client)
  - Option 2: Alacritech SEN2001XT Gigabit Ethernet Accelerator (MediaNetwork EAC)
  - Option 3: Tarari Encoder Accelerator for Windows Media
    (alternative slot – when Slot-5 has IEEE-1394 adapter)
- **Slot 7 (PCI-X 100MHz)**
  - Optional: Atto UL4D PCI-X u320 Dual-Channel SCSI controller (Local SCSC Storage)

Note:
Do not install add-in boards until the BIOS checks in the following section have been performed.



HP xw8400 Slot Numbering

Avid Qualified add-in board options

- **For AVID Unity MediaNet F/C connectivity:**
  - Atto Celerity FC-41ES PCI-E 4Gb single channel Fibre adapter (Avid P/N 7030-02004-01, RoHS)
- **For local Fibre storage connectivity:**
  - Atto Celerity FC-42ES PCI-E 4Gb dual channel F/C adapter (Avid P/N 7030-02006-01, RoHS)
- **For AVID Unity MediaNet Ethernet connectivity:**
  - Alacritech SEN2001 Gb Ethernet (Avid P/N 7030-20034-01, RoHS)
- **For AVID Studio / 002 connectivity:**
  - ADS Technologies PYRO PCI 64 (API-311) Avid P/N 7030-03117-02 (RoHS)
  - ADS Technologies PYRO PCI 64R2 (API-315) Avid P/N 0030-03117-02 (Non-RoHS)
  - SIIG 1394 3-port PCI I/O (NN-300012-S6)
- **For Windows Media Encoding Acceleration:**
  - Tarari Accelerator Card http://www.tarari.com/products-digitalmedia.html
- **AVID ISIS Connectivity:**
  - Intel PRO/1000 MT PCI-X Dual Port Gbit Ethernet Server Adapter (Avid P/N 7030-03294-01, RoHS)
  - Intel PRO/1000 MT PCI-X Dual Port Gbit Ethernet Server Adapter (Avid P/N 0030-03294-01, Non-RoHS)

Drivers and Firmware for add-in boards

Add-in card	Connectivity	Firmware	Driver
Atto UL4D u320 SCSI controller	Local Storage	2.2*	3.0
Atto Celerity FC-41ES PCI-e	Unity MediaNetwork	2.16* or 2.50**	2.16 or 2.51**
Atto Celerity FC-42ES PCI-e	Local Storage	2.18*	2.18
Alacritech SEN2001XT	Unity MediaNetwork	n/a	7.3.0.1 or 7.3.1.0
Intel® PRO/1000MT	Unity ISIS (all versions)	n/a	8.6.17

** The Atto ConfigTool is required to install Atto firmware ** This version is **required** for Unity MediaNetwork 5.0*

BIOS Checks

Check the BIOS rev of your xw8400 system:

1. Press the F10 key during boot-up (to enter the BIOS setup page - this may take 30-60 seconds)
2. Choose your preferred language when prompted to enter Setup.
3. On the Main BIOS System Information page the System BIOS is shown.
4. If it is lower than Rev 2.05 you must update your xw8400 BIOS.

The latest BIOS version can be found at:

http://h20000.www2.hp.com/bizsupport/TechSupport/SoftwareDescription.jsp?lang=en&cc=US&swItem=wk-49149-1

As of June 2007, the latest fully Avid Qualified BIOS version is v2.15 but v2.21 has not demonstrated any issues.

Upgrade the system BIOS:

1. Download the BIOS file (link below) and extract to the desktop
2. Open the folder and then open the HPQFlash folder
3. Run HPQFlash to install the new BIOS
4. BIOS update complete
5. If requested on system reboot select F1 to save BIOS change

On systems that have an Intel PRO/1000 MT card fitted, Avid has found that the on-board NIC must be disabled to prevent a “hard-hang” condition after a few hours of operation. The adapter must be disabled via the BIOS set up – disabling from within the OS is not sufficient. (NB: This **ONLY** affects systems with a PRO/1000 card installed).

Disable the on-board NIC:

1. Reboot the system and enter the BIOS via F10
2. Choose your preferred language when prompted to enter Setup.
3. Navigate to the Security Menu
4. In the Security Menu select Device Security
5. In the Device Security selection window arrow down to the Network Adapter selection.
6. Use the right arrow to change the option to read “Device Hidden” instead of “Device Available.”
7. Use the F10 key to save your setting change.
8. Hit F10 again to get to the Save Changes and Exit prompt.
9. Hit Enter to select Save Changes and Exit.
10. Hit F10 to Save and Exit.

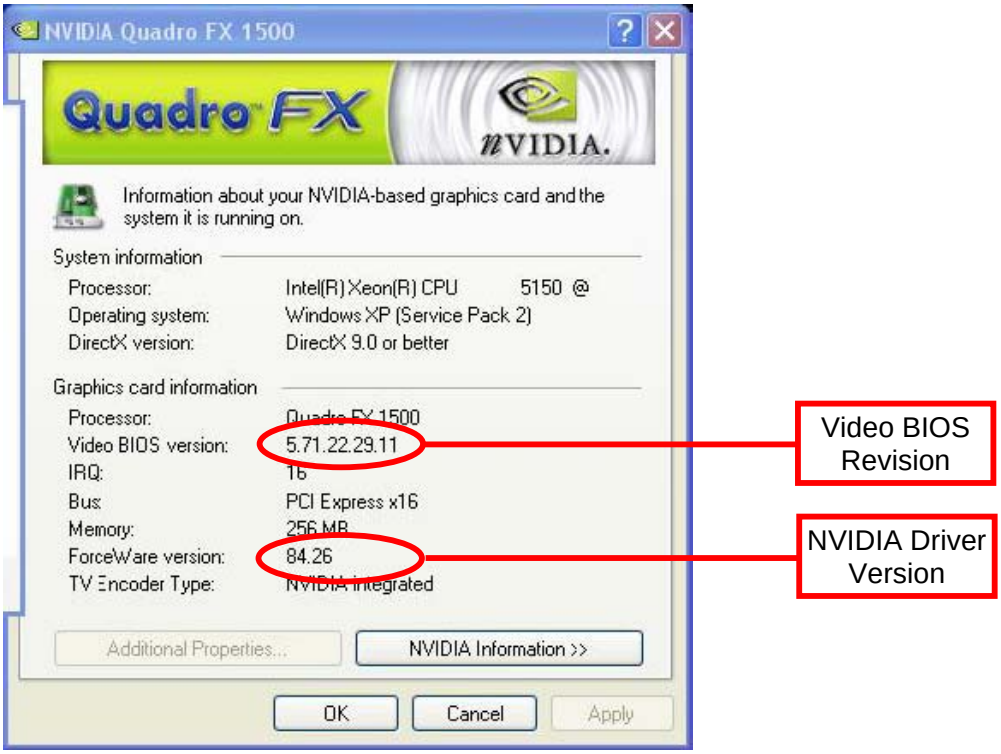
Video Board and Drivers

MediaComposer, Xpress Pro and NewsCutter on an xw8400 require an NVIDIA Quadro FX1500 or FX3500 OpenGL video adapter. This card is very tightly integrated with the operation of the editing software and only specific driver versions are qualified by Avid. As of June 2007, the qualified NVIDIA driver and video card BIOS revision are as follows:

NVIDIA ForceWare driver:	**84.26** or **91.85**
FX1500 video BIOS revision:	**5.71.22.29.11** or later is recommended.
FX3500 video BIOS revision:	**5.71.22.29.06** or later is recommended.

These may be verified from the NVIDIA settings page:

1. Right-click on the desktop and select “Properties”
2. Click the “Settings” tab
3. Click the “Advanced” button
4. Click the “Quadro FX 1500” tab
5. Check the Driver and BIOS versions



If the Quadro FX 1500 video BIOS is not at revision 5.71.22.29.11 it will need to be updated.
Use the HP file **SP33616.exe** which can be found at:

http://h20000.www2.hp.com/bizsupport/TechSupport/SoftwareDescription.jsp?lang=en&cc=us&swItem=wk-42635-1&jumpid=reg_R1002_USEN

If the Quadro FX 3500 video BIOS is not revision 5.71.22.29.06 it will need to be updated.
Use the HP file **SP33615.exe** which can be found at:

http://h20000.www2.hp.com/bizsupport/TechSupport/SoftwareDescription.jsp?lang=en&cc=us&prodTypeId=12454&prodSeriesId=1844968&prodNameId=1844969&swEnvOID=1093&swLang=13&mode=2&taskId=135&swItem=wk-42638-1

If the NVIDIA driver is not v84.26 or v91.85, remove the existing NVIDIA driver as follows:

1. Go to the WinXP control panel
2. Select Add/Remove programs
3. Select NVIDIA drivers
4. Select Remove
5. Answer “yes” to “Erase new profiles?”
6. Reboot the system
7. Cancel any hardware wizards which appear

The appropriate NVIDIA driver can be found in the folder “C:\Program Files\Avid\Utilities\nVidia”.

The v84.26 driver can also be found at: http://www.nvidia.com/object/winxp_2k_84.26.html

The v91.85 driver can also be found at: http://www.nvidia.com/object/winxp_2k_91.85.html

When the installation of the drivers is complete and the system has rebooted, verify that the driver and BIOS versions are now correct.

System setup, configuration notes and caveats

Windows XP optimisation

For use with Avid editing systems, Windows XP must have certain optimisations applied. These are detailed in the file "**WinXP_tuning_2005.pdf**". Most (but not all!) can be performed by applying the registry patch "**WinXP_Optimize_v3.reg**". These files are available from Avid Support.

XW8400 required system driver updates

Broadcom embedded NIC driver:

The existing Broadcom v8.48.0.0 (11/9/2005) driver should be replaced with the newer v9.52.0.0 driver.
Use the HP file **SP33206.exe** which can be found at:

http://h20000.www2.hp.com/bizsupport/TechSupport/SoftwareIndex.jsp?lang=en&cc=us&prodNameId=1844969&prodTypeId=12454&prodSeriesId=1844968&swLang=13&taskId=135&swEnvOID=1093

Atto SCSI Host Adapter BIOS

If the configuration is using an Atto UL4D for local storage (Slot-7), the Atto SCSI Host Adapter BIOS must be turned off or local storage problems may occur. To do this, perform the following:

1. Reboot the system
2. Hit Ctrl-Z when the Atto UL4D BIOS message prompts.
3. Select 1 - Adapter menu
4. Select 2 - Configure Adapter Channels
5. Select Host Adapter BIOS
6. Select "Disabled"
7. Press "ESC"
8. Press "ESC"
9. Select 4 – Save Parameters and Exit

Boot.ini file changes

3GB total memory is required for Media Composer Adrenaline for HD projects or SD projects using many streams. 3GB physical memory requires a change incorporated to the system boot.ini file.
The change can be automatically incorporated by running the AVID "Install3GB.bat" utility found in the C:\Program Files\Avid\Utilities\3GB folder, or modify the file manually as follows:

```
multi(0)disk(0)rdisk(0)partition(1)\WINDOWS="Microsoft Windows XP Professional
Avid 2.5GB" /3GB /userva=2500 /fastdetect /noexecute=optin
```

Deck Control

For the 1st RS-422 port, use a Rosetta Stone converter on COM1:

For the 2nd port, use a Serial to USB converter (Belkin or Keyspan)

Restrictions

Slot-1 must remain empty and cannot be used if DNA is attached to onboard IEEE-1394 controller

The on-board Broadcom Ethernet adapter is **NOT** supported for Unity ISIS connectivity

The Alacritech SEN2001XT Ethernet adapter is **NOT** supported for Unity ISIS connectivity

The Intel PRO/1000 MT is **NOT** supported for Unity MediaNetwork Ethernet Attached Clients

For Connectivity to the Avid VideoRAID-RTR u320 SCSI use **only** the following cable:

1.5 Metre VHDCI-to-VHDCI SCSI Cable - Avid P/N 7070-03159-01